

Notice of Allowability

Application No.

10/596,551

Examiner

Thuy V. Tran

Applicant(s)

IONESCU, ADRIAN F.

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 08/11/2006 & Tel. Interview held 06/22/07.
2. ☒ The allowed claim(s) is/are 1 and 2.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached:
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 20070622.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 20070622.

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____

THUY V. TRAN
PRIMARY EXAMINER

DETAILED ACTION

This Office Action is in response to the Applicant's communication filed on 08/11/2006 and the telephone interview held on 06/22/2007. In virtue of this communication, claims 1-2 are currently presented in the instant application.

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Amernick, Burton (Reg. No. 24,852) on 06/22/2007 ^{See Attached Interview Summary}. The amendment includes:

Claim 1, line 25, "is capable of initiating" has been changed to --initiates--; and
Claim 2, line 12, --with-- has been inserted between "synchronizing" and "the".

Allowable Subject Matter

2. Claims 1-2 are allowed.

Reasons for Allowance

3. The following is an examiner's statement of reasons for allowance:

Prior art fails to disclose or fairly suggest:

- A step voltage controlling device comprising a plurality of switch blocks each receiving an associated one of the plurality of command signals from the controller block, wherein one switch block of the plurality of switch blocks selectively

electrically couples the second AC voltage input terminal and a second output terminal in response to the associated one of the plurality of command signals from the controller block, wherein remaining ones of the plurality of switch blocks each separately and selectively electrically couples an associated output tap of the multiple tap step-down autotransformer to the second output terminal, wherein the controller block at least initially generates a command signal which turns on the one switch block so as to provide a full output voltage between the first and second output terminals, wherein, after a nominal period of time, the controller block initiates a reduction of an output voltage applied voltage across the first and second output terminals by removing the command signal applied to the one switch block so as to turn off the one switch block and to turn on another one of the plurality of switch blocks so as to provide a reduced output voltage between the first and second output terminals, in combination with the remaining claimed limitations as called for in independent claim 1; and

- A method for step controlling a voltage applied to a load comprising processing the plural pulsed signals and generating command signals for each of the multiple voltage switching blocks, determining a zero-crossing point of the load current, and controlling an instantaneous variation of a voltage applied to the load by synchronizing with the determined zero-crossing point, in combination with the remaining claimed limitations as called for in independent claim 2.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

Art Unit: 2821

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Citation of relevant prior art

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Prior art Lindauer et al. (U.S. Patent No. 5,714,847) discloses a power regulator;

Prior art Ionescu (U.S. Patent No. 5,500,575) discloses a switch mode power controller;

Prior art Fredrick et al. (U.S. Patent No. 4,873,618) discloses a power supply for lamps;

Prior art Fredrick et al. (U.S. Patent No. 4,873,617) discloses a power supply for lamps;

Prior art Cooper (U.S. Patent No. 4,716,357) discloses an AC regulator with switching elements;

Prior art Engelmann et al. (U.S. Patent No. 4,673,888) discloses a power control system;

Prior art Stich (U.S. Patent No. 4,622,513) discloses an arcless tap regulator; and

Prior art Reinert (U.S. Patent No. 3,281,654) discloses AC voltage regulating systems.

Comments on drawings

5. The drawings submitted on 06/16/2006 are not accepted since all the reference characters/numerals are not legible. Providing a whole set of drawings with clear reference characters/numerals in compliance with 37 CFR 1.121(d) is required.

Applicant is noted that in order to avoid abandonment of this application, the correction is required in reply to the Office action. The correction will not be held in abeyance.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy V. Tran whose telephone number is (571) 272-1828. The examiner can normally be reached on M-F (8:00 AM -4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Owens Douglas can be reached on (571) 272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

06/22/2007



**THUY V. TRAN
PRIMARY EXAMINER**